SANTA CRUZ BIOTECHNOLOGY, INC.

CASPR5 siRNA (m): sc-142023

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The Power to Question

BACKGROUND

Neurexins comprise a family of neuronal cell surface proteins, which include neurexin I (NRXN1), neurexin II (NRXN2), neurexin III (NRXN3) and CASPR (neurexin IV). CASPR5 (contactin associated protein-like 5), also known as cell recognition molecule Caspr5 or CNTNAP5, is a 1,306 amino acid single-pass type I membrane protein that belongs to the neurexin family. CASPR5 is involved in the development of the central and peripheral nervous system and contains two EGF-like domains, one fibrinogen C-terminal domain, four laminin G-like domains and a F5/8 type C domain. The gene encoding CASPR5 maps to human chromosome 2, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin icthyosis, sitosterolemia and Alström syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Cntnap5a (mouse) mapping to 1 E2.3.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

PRODUCT

CASPR5 siRNA (m) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see CASPR5 shRNA Plasmid (m): sc-142023-SH and CASPR5 shRNA (m) Lentiviral Particles: sc-142023-V as alternate gene silencing products.

For independent verification of CASPR5 (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-142023A, sc-142023B and sc-142023C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

CASPR5 siRNA (m) is recommended for the inhibition of CASPR5 expression in mouse cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor CASPR5 gene expression knockdown using RT-PCR Primer: CASPR5 (m)-PR: sc-142023-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.